

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed August 2, 2001. In order to advance prosecution in this Application, Claims 2, 3, 10, and 11 have been amended and Claim 1 has been canceled without prejudice or disclaimer. Applicant respectfully requests reconsideration and favorable action in this Application.

The drawings stand objected to for various identified errors. Attached herewith for the Examiner's approval are corrected formal drawings correcting the errors identified by the Examiner. Applicant respectfully requests the Examiner to have the Draftsperson review and approve the corrected formal drawings.

The specification stands objected to for various informalities. The specification and the drawings have been amended to address the informalities identified by the Examiner.

Claims 1, 3, 10, and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Carey, et al. in view of Gryphon, et al. and further in view of Hurwitz, et al. Claim 1 has been cancelled without prejudice or disclaimer. Claims 3, 10, and 11 have been amended to depend from allowable Claim 2. With the amendment of Claim 2 into independent form, Applicant respectfully submits that Claims 3, 10, and 11 are in condition for allowance.

Applicant notes with appreciation the allowability of Claims 2 and 4-9 if placed into proper independent form. Claim 2 has been amended into independent form as suggested by the Examiner. Therefore, Applicant respectfully submits that Claims 2 and 4-9 are in condition for allowance.

Applicant notes with appreciation the allowance of Claim 12.

ATTORNEY DOCKET NO.
014208.1334
(70-99-002)

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Applicant has now made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicant respectfully requests full allowance of Claims 2-12.

The Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 05-0765 of Electronic Data Systems Corporation.

Respectfully submitted,

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A handwritten signature in dark ink, appearing to read "Charles S. Fish", is written over the printed name.

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November 2, 2001

MARKED UP VERSION OF SPECIFICATION AND CLAIM AMENDMENTS

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made. The claims have been amended as follows:

IN THE SPECIFICATION

Please amend the Brief Description of the Drawings beginning at page 5 as follows:

BRIEF DESCRIPTION OF THE DRAWINGS

For a more complete understanding of the present invention and the advantages thereof, reference is now made to the following description taken in conjunction with the accompanying drawings, wherein like reference numerals represent like parts, in which:

FIGURE 1 illustrates a planning continuum showing the intermediate steps from a business strategy to deliver information technology;

FIGURE 2 illustrates the planning continuum in more detail showing inputs, outputs and relationships;

FIGURE 3 illustrates a simplified block diagram of an enterprise architecture for a business, and how business and IT interrelate;

FIGURE 4 illustrates fundamental strategic information technology planning framework components;

FIGURE 5 illustrates an enterprise strategic information technology planning framework tower model;

FIGURE 6 illustrates an operating environment model for the enterprise business;

FIGURE 7 illustrates support and line functions for the enterprise business;

FIGURE 8 illustrates a logical business location map;

FIGURE 9 illustrates a geo-structural view of the logical business location map;

FIGURE 10 illustrates an information technology investment and expenditure profile;

FIGURE 11 illustrates a client information technology and industry expenditure benchmark;

FIGURES 12A-C illustrate [FIGURE 12 illustrates] the enterprise business frame with the external inputs and outputs and associated entities ;

FIGURES 13A-D illustrate [FIGURE 13 illustrates] value stream aggregates of the business' enterprise;

FIGURES 14A-B illustrate [FIGURE 14 illustrates] a value stream event model and corresponding metrics;

FIGURE 15 illustrates a process architecture for a value stream of the business enterprise;

FIGURE 16 illustrates a value stream environment model;

FIGURE 17 illustrates a process workflow scenario model for a value stream;

FIGURE 18 illustrates enterprise information and data management framework and precepts;

FIGURE 19 illustrates business intelligence scenarios;

FIGURE 20 illustrates a geo-structural component view for information architecture;

FIGURE 21 illustrates an information and data architecture data warehouse framework;

FIGURE 22 illustrates an information application portfolio and system integration matrix;

FIGURE 23 illustrates an example of an integrated application architecture for value stream enablement;

FIGURES 24A-B illustrate [FIGURE 24 illustrates] a geo-structural component view for an application architecture;

FIGURE 25 illustrates an enterprise application software portfolio and system integration matrix;

FIGURE 26 illustrates an example of application portfolio best practices recommendations;

FIGURE 27 illustrates a technical reference model, associated platform, and [goverance] governance structure of policies and standards;

FIGURE 28 illustrates a logical location connectivity model;

FIGURE 29 illustrates a logical location and logical software component matrix;

FIGURE 30 illustrates a logical location software deployment scheme;

FIGURES 31 and 31A-D illustrate [FIGURE 31 illustrates] a geo-structural component view for a technology infrastructure architecture;

FIGURE 32 illustrates an example of technology infrastructure architecture best practices recommendations;

FIGURE 33 illustrates a system management business model;

FIGURE 34 illustrates enterprise systems management process models;

FIGURES 35 and 35A-C illustrate [FIGURE 35 illustrates] a geo-structural component view for an information technology systems management architecture;

FIGURE 36 illustrates an integration matrix for a systems management software portfolio;

FIGURE 37 illustrates a geo-structural component view for an enterprise information technology management organizational framework;

FIGURES 38A-B illustrate [FIGURE 38 illustrates] the enterprise information technology management organizational model;

FIGURE 39 illustrates a framework blueprint;
FIGURE 40 illustrates a strategic information technology plan blueprint;
FIGURE 41 illustrates how a blueprint guides formation of target models;
FIGURES 42A-B illustrate [FIGURE 42 illustrates] an approach to strategic information technology planning;
FIGURE 43 illustrates the construction and implementation of a strategic information technology plan;
FIGURES 44A-B illustrate [FIGURE 44 illustrates] a strategic information technology framework workflow delivery scenario; and
FIGURE 45 illustrates the components of a strategic information technology plan.

Please amend the paragraph beginning at page 35, line 25, as follows:

An IT investment profile 999 [1000] example shown in FIGURE 10 reflects the company's overall investment in IT and where it is focused. To some degree, profile 999 [1000] illustrates the perceived value the enterprise places on IT. Investment and expenditure profile 999 [1000] provides a view of the monetary delimiters on the IT operating environment and sets the tone and expectations for future IT expenditure. This will directly impact the feasibility of certain technology choices and recommended IT initiatives to reach targeted architectures and environment.

Please amend the paragraph beginning at page 36, line 15, as follows:

The enterprise business architecture is key to the business success of a corporation as well as the development of effective strategic IT plans. From the strategic business models articulating the business process architectures (value streams) the requisite enabling technology and information requirements can be derived. The level of detail and accuracy applied to these models will directly impact the robustness of the IT plans that can be developed for an enterprise as well as the success of their subsequent implementation. At the highest level, the business architecture is represented by an enterprise model 1200 that shows the essential elements of primary external business processes 1295 and the respective inputs 1230 from and outputs 1208 to external sources 1204. As shown in FIGURES 12A-C [FIGURE 12}, the frame 1202 in the middle of the model represents the client enterprise. This model is an example of a manufacturing industry enterprise and the specific content in the individual figures are only representative in nature and will vary for each enterprise.

Please amend the paragraph beginning at page 37, line 3, as follows:

Enterprise frame 1202 handles various inputs and provides various outputs for interfacing with external processes. An enterprise frame 1202 may create such elements as business leads 1206, literature 1208, discount agreements 1210, request for quote responses 1212, quotes 1214, orders[,] 1216, customer invoices 1218, fulfilled orders 1220, fulfilled customer requests 1222, complaint resolution 1224, packaging material 1226, and rejected requests 1228 as inputs to customer process 1204. Likewise, customer process 1204 may create elements such as business leads 1206, request for quote requests 1230, customer information 1232, orders 1216, customer payments 1234, customer requests 1236, and returned items 1238 as inputs to enterprise frame 1202. Enterprise frame 1202 may receive inputs from a human resources services process 1240 for such items as interested candidates 1242 and employment development services 1244. A government services process 1246 may create items such as Environmental Protection Agency guidelines 1248, Occupational Safety and Health Administration (OSHA) guidelines 1250, and government policies and regulations 1252 for input to enterprise frame 1202. Other processes of the aggregate input/output model 1200 include an employee support process 1254 that may receive compensation 1256, benefits 1258, employee information 1260, and reimbursements 1262 inputs generated by enterprise frame 1202 while creating reimbursement requests 1264 and other employee issues 1260 for processing by enterprise frame 1202. A supply goods and services process 1266 creates manufacturing material 1268, supplier capacity and availability 1270, goods 1272, and vendor invoice 1274 inputs to enterprise frame 1202 while responding to vendor payment 1276 and purchase order

1278 inputs created by enterprise frame 1202. A settle payments process 1279 handles electronic funds transfer payments 1280 and foreign currency wire request inputs 1281 generated by enterprise frame 1202 and provides electronic funds transfer remit 1282 and foreign currency wire remit advices 1283 to enterprise frame 1202. A legal action process 1284 handles closed case 1285 and implemented policy and regulation 1286 issues and generates legal issues 1287. A strategic services process 1288 issues science and technology drivers 1289, industry trends 1290, and external market 1291 data to enterprise frame 1202 for strategic planning consideration. An authorize credit process 1292 responds to credit check requests 1293 with credit check responses 1294. Similarly, a credit analysis process 1295 responds to credit analysis requests 1296 with credit analysis responses 1297.

Please amend the paragraph beginning at page 39, line 3, as follows:

The value streams can be grouped into four categories: Customer Facing, People Caring, Business Enabling, and Future Building. FIGURES 13A-D represent [FIGURE 13 represents] a model 1300 of the aggregation of the processes within a particular category (e.g. Customer Facing) and the external inputs and outputs to support the value streams. This view shows not only the integration within a category but depicts the required inputs and outputs from the other categories within the enterprise as well as sources outside the enterprise such as enable customer process 1204 of FIGURES 12A-C [FIGURE 12]. The [eliptical] elliptical elements such as [fullfilled] fulfilled order 1220 represent tangible objects. The hard cornered or rectangular objects such as customer invoice 1218 represent IT objects exchanged with other value streams or external entities. The specific content in the individual figures are only representative in nature and will vary for each enterprise.

Please amend the paragraph beginning at page 39, line 20, as follows:

In FIGURES 13A-D [FIGURE 13], enable customer process 1204 of FIGURES 12A-C [FIGURE 12] is shown with its inputs and outputs interacting with both internal and external processes, such as order to cash process 1302 and credit analysis process 1295. An order to cash process 1302 generates customer invoices 1218 and quotes 1214 for enable customer process 1204 and generates credit check requests 1293 for authorize credit process 1292. Order to cash process 1302 also generates receivable debit entries 1304 and receivable credit entries 1306 as well as work orders 1308 for input to a manufacturing to distribution process 1310. Order to cash process 1302 handles credit check responses 1294 from authorize credit process 1292 along with orders 1216 and customer payments 1234 from customer process 1204. Order to cash process 1302 also handles Availability to Promise ATP data 1312, scheduled ship date 1314, advanced ship notice 1316, advice of receipt 1318, and proof of delivery 1320 inputs generated by manufacturing to distribution process 1310. Manufacturing to distribution process 1310 generates engineering change reports 1322, manufacturing material demands 1324, and receipt acknowledgments 1326 along with handling manufacturing material 1328 and technical manual 1330 inputs.

Please amend the paragraph beginning at page 42, line 1, as follows:

FIGURES 14A-B represent [FIGURE 14 represents] an example of a generic event model 1400 for a value stream such as "Order to Cash". This concept requires that for each value stream identified in the enterprise business architecture there will be a corresponding event model. The event model articulates each event that triggers a workflow scenario within the value stream. The value stream event metrics matrices capture the number of events that occur over some specified time periods. These events could be either external or internal to the enterprise. For each event identified in the model a logical location software deployment schema will be derived.

Please amend the paragraph beginning at page 42, line 13, as follows:

In FIGURES 14A-B [FIGURE 14], the fulfill order scenario 1401 is initiated by various events including customer cruising the web site 1402, customer placing order 1404, and credit authority responds to credit check request 1406, all of which are external events. Time to invoice the customer 1408, is an example of an internal event. Other internal events include time to invoice customer 1408, and customer makes payment 1410, order entry sends order to manufacturing 1412. Subsequently, field service repair orders replacement parts 1414, submits billing inputs 1415, shipping provides proof of delivery 1416, advice of receipt 1418, and Advance Ship Notice (ASN) 1420 as well as operations updates to ship date 1422 and ATP 1424 to assist in keeping track of the order. The maintain/change order scenario 1550 is driven by the customer changing an order 1426 or canceling an order 1428. Authorization to refund an order for fulfill refund scenario 1514 is given by customer service 1430. A review order scenario 1432 processes a customer's review request 1434. The specific content in the individual figures are only representative in nature and will vary for each enterprise.

Please amend the paragraph beginning at page 43, line 11, as follows:

In FIGURE 15, the essential elements are the work elements being executed as represented by fulfill order scenario 1401 and the information being created and used as represented by new order request 1522. In FIGURE 15, a fulfill order scenario 1401 may process field service billing input 1340, product configuration 1356, customer profile 1358, advanced ship notice 1316, advice of receipt 1318, proof of delivery 1320, customer payment 1234, credit check responses 1294, and ATP data 1312 inputs and generates scheduled ship date 1314, customer invoice 1218, credit check request 1293, quote 1214, and an order release 1504. A customer [Customer] data to consumer intelligence process [1503] drives the information for customer profile 1358. An order 1216 is generated by fulfill order scenario 1401. Order 1216 includes information with respect to an order such as being entered 1506, released 1508, invoiced 1510, and paid 1512. Order 1216 may be generated by fulfill refund scenario 1514 that can create a credit refund 1516 or a customer credit memo 1518. Fulfill refund scenario 1514 is triggered upon an indication by approved refund/return 1520.

Please amend the paragraph beginning at page 54, line 31, as follows:

The enterprise application portfolio is then summarized into a geo-structural view. FIGURES 24A-B provide [FIGURE 24 provides] an example of geo-structural view 2400 for a generic manufacturing company. This geo-structural view shows the logical location of the logical application portfolio components that must be integrated through a technical infrastructure in order to form the required, integrated, corporate enterprise business system.

Please amend the paragraph beginning at page 55, line 7, as follows:

In FIGURES 24A-B [FIGURE 24], applications for an enterprise are supervised by an enterprise server farm 2402. Enterprise server farm 2402 includes servers for service management 2404, sales and marketing 2406, [financial] financial accounting 2408, product planning 2410, material management 2412, asset management 2414, logistics and distribution management 2416, QA/QC/QM management 2418, human resources 2420, complaint management 2422, legal and safety 2424, corporate management 2426, office automation 2428, web 2430 and others 2432. An external request processor 2434 handles server access to internal corporate data stores through enterprise data warehouse 2002, regional data mart 2036, and internal [operational] databases 2022. External request processor 2434 may also provide server access to external [operational] databases 2024 and external client workstations 2436. An internal request processor 2438 provides server access to client work stations at large regional/sales offices 2034, mobile/small users and offices 2032, and corporate headquarters 2030 either directly or through an office application server 2440. Office application server 2440 may include print 2442, file 2444, post office 2446, and office automation 2448 functions. Client workstations may include workflow/collaboration replication 2450, application presentation 2452, and web applications 2454 capabilities.

Please amend the paragraph beginning at page 63, line 5, as follows:

FIGURES 31 and 31A-D provide [FIGURE 31 provides] an example of a technical infrastructure logical/physical view 3100. This view correlates the required system components and infrastructure requirements of the enterprise for enabling the value streams and workflow scenarios to the logical location maps and templates from the business architecture plane. From the logical infrastructure depictions in FIGURES 31 and 31A-D [FIGURE 31] coupled with the logical location deployment schemas, the lower level technology component architectures (e.g. internet) can be identified and consequently engineered. The logical location software models and the consolidated technology infrastructure architectures identify the logical applications that need to integrate and operate together, portray the enabling operational elements, processes and technology components for achieving the desired operating results based on the organization's business goals, objectives, critical success factors, and performance metrics, and highlight the system integration requirements in support of the information, application, systems management, and infrastructure architectures.

Please amend the paragraph beginning at page 68, line 21, as follows:

An enterprise systems management technology architecture 3500 shown in FIGURES 35 and 35A-C [FIGURE 35] can be constructed to depict the technology layout based on the ITU-T Systems Management Business model 3300 and mapped to the logical location maps of the enterprise. The geo-structural view highlights where the enabling application architectural components of the Enterprise Systems Management Software Portfolio are logically located within the enterprise. The geo-structural view shows the logical location of all the logical systems management application components that must be integrated together through a technical infrastructure to create the required, integrated, corporate enterprise systems management environment.

Please amend the paragraph beginning at page 69, line 3, as follows:

In FIGURES 35 and 35A-C [FIGURE 35], element management 3308 of business model 3300 includes sales/manufacturing locations 3502, customer service centers 3504, corporate/regional headquarters 3506, and operations centers 3508. Each location of element management 3308 may include management information base agents 3510, enterprise servers 3512, database servers 3514, hubs 3516, ATM switches 3518, routers 3520, office servers 3522, gateways 3524, mainframe 3526, and desktop computers 3528. Element management 3308 communicates with systems/network management 3306 over a network 3530. Systems/network management 3306 may include at an operations center 3532 having performance management 3534, event management 3536, configuration management 3538, and systems support 3540 functions. Event management may further include systems monitoring 3542, network monitoring 3544, and fault management 3546. Systems support 3540 may have object management 3548, print management 3550 directory services management 3552, time management 3554 software/media management 3556, security services 3558 and web server management 3560.

Please amend the paragraph beginning at page 71, line 3, as follows:

FIGURES 38A-B depict [FIGURE 38 depicts] the IT organizational model 3800 from which the IT organization areas can be identified and modeled. An executive board 3802 includes business unit partners 3804 and IT governance 3806. Executive board 3802 provides strategic business direction and value needs and IT governance, policy, and approvals in response to IT leadership and innovation, strategic direction, solutions plan, investment and opportunities and business value results inputs from the enterprise. The enterprise performs a manage/deliver IT value function 3808 that uses an IT supply chain model 3810 with plan/manage information technology 3812, assess demand 3814, develop products, services, and processes 3816, and fulfill demand 3818 links. Manage/deliver IT value function 3808 generates IT products and IS services for stakeholders and business clients 3820 in response to [collaboration] collaboration, service needs and metrics, and business process innovations developed with them. Manage/deliver IT value function is driven by Tower model 500 in conjunction with the people and culture 3822 of the enterprise and its IT partners 3824. IT partners 3824 provide products, experience, trends, services, staff, innovation, and expertise to assist the people and culture 3822 of the enterprise to implement IT development and delivery. Aspects of the people and culture 3822 of the enterprise that are important both individually and to the enterprise include identification of core competencies 3826, roles and responsibilities 3828, traits and behaviors 3830 skills and knowledge 3832, learning reflex 3834, incentives 3836, and performance practices 3838. Tower model 500 provides a business context 3840, IT change initiatives 3842, IT strategic direction 3844, IT innovation solution sets 3846, and IT industry knowledge 3848 in order to deliver the enterprise's IT value.

Please amend the paragraph beginning at page 76, line 21, as follows:

The blueprint components selected from the Tower must then be evaluated depending on customer needs, pre-existing conditions, IT and business environments, and maturity of existing client architectures and frameworks. Upon that evaluation an approach and work pattern can be developed to correlate components into a unified whole for a specific purpose and result. In the case of a strategic IT planning work pattern, the result will be a strategic IT plan that includes the appropriate business and technology architectures and frameworks and a roadmap on how to get from the current environment to the target environment. FIGURES 42A-B graphically depict [FIGURE 42 graphically depicts] how a strategic IT planning approach is constructed from the strategic IT plan blueprint in conjunction with the previous description of the intent behind the IT planning strategy.

Please amend the paragraph beginning at page 81, line 9, as follows:

FIGURES 44A-B depict [FIGURE 44 depicts] the workflow scenario for delivering a strategic IT framework. The following is a brief description of the model. The first critical step defined in the workflow is to initiate the engagement or project by defining the approach, identifying participants including project team members, decision makers, and information sources, establishing the duration and key milestones, and establishing the scope and objectives. Interviews with key participants are then conducted with typically parallel efforts to gather existing documentation. This set of work or activities will lead to the next major steps, which are the development of the requisite business and technology models inclusive of current situation analysis and future direction understanding. The Tower reference models are fully documented and in this case are considered to be major deliverables with appropriate client participation and approvals for content. Key inputs to the development of the models are knowledge of emerging technologies, industry best practices, technology policy, and business trends. The project management process requires that project workbooks are created and interim milestones are met for periodic reviews and continuous feedback. Based on the drivers, gaps, and transition needs, a strategy to change the IT environment is defined. The participants assess this initial view of the Strategic IT Framework to assure business/IT alignment, estimate resources and feasibility, and determine staging and priorities of change initiatives. The result of this assessment is then presented to key decision makers which are typically IT Steering committees. The projects is then considered closed and should be viewed objectively to assess where it was successful and determine a process to maintain the plan and ensure its implementation.

IN THE CLAIMS

1. (Canceled) A method of modeling integrated business and information technology frameworks and architecture in support of a business comprising:

identifying manageable entities of the business and the supporting information technology;

determining an overall architecture for the business, the overall architecture defining how the manageable entities relate to each other;

implementing a common language in order to articulate the overall architecture; and

analyzing information technology requirements for the business; and

planning for implementation and deployment of information technology according to the overall architecture.

2. (Amended and Allowed) A method of modeling integrated business and information technology frameworks and architecture in support of a business comprising:

identifying manageable entities of the business and the supporting information technology;

determining an overall architecture for the business, the overall architecture defining how the manageable entities relate to each other;

implementing a common language in order to articulate the overall architecture; and

analyzing information technology requirements for the business; and

planning for implementation and deployment of information technology according to the overall architecture; [The method of Claim 1,]

wherein the overall architecture contains a plurality of components, the plurality of components including a strategic plan, a business architecture, an information architecture, an application architecture, a technology infrastructure architecture, and an enterprise IT management framework.

3. (Amended) The method of Claim [1] 2, wherein the overall architecture addresses people, processes, and technology of the business.

4. (Allowed) The method of Claim 2, wherein the strategic plan component includes a business plan, a product plan, a financial plan, an organization plan, a marketing plan, and an information technology plan in support of the aforementioned plans.

5. (Allowed) The method of Claim 2, wherein the business architecture component defines current business direction, objectives, and supporting processes as well as future direction, objectives, and supporting processes.

6. (Allowed) The method of Claim 2, wherein the information architecture component provides information and data management precepts, an information-application software portfolio, and a geo-structural view of information specific technology deployment.

7. (Allowed) The method of Claim 2, wherein the application architecture component defines an application software portfolio and integration relationships for the business.

8. (Allowed) The method of Claim 2, wherein the technology infrastructure architecture component enables access to information and geo-structural layouts for IT platforms.

9. (Allowed) The method of claim 2, wherein the enterprise information technology management framework component provides information technology services and products, management of the services, IT systems and network management, and the enterprise IT management organization capabilities, competencies, skills, and performance models.

10. (Amended) The method of Claim [1] 2, further comprising:

decomposing the manageable entities so that each manageable entity has a relative independence from other manageable entities but is in context with the overall enterprise architecture.

11. (Amended) The method of Claim [1] 2, wherein the overall architecture provides the starting point for determining the context and foundation components and elements needed to build either a Strategic IT Plan, overall enterprise architecture, or enabling IT solutions for an enterprise.

12. (Allowed) A structure for modeling integrated business and information technology frameworks and architecture in support of a business comprising:

an overall architecture defining how manageable entities of a business relate to one another, the overall architecture including:

a strategic business plan component providing context and guidance that drive definition of business functions, processes, systems, and organization;

a business architecture component reflecting what the business does in the present as well as in the future to accomplish particular business requirements;

an information architecture component representing what information is to be delivered to individuals across the business;

an application architecture component supporting business process execution and information flow;

a technology infrastructure architecture supporting execution of activities and defining what information technology components are needed to enable access to information;

an enterprise information technology management architecture component dealing with business and organizational management of providing information technology services and products as well as systems, network, and element management.